

CLAIMS

What is claimed is:

1. A method for manufacturing smooth surface board from fibrous material, the method comprising the steps of:
moving fibrous material through an oven on a first conveyor assembly to produce a board of fibrous material, the first conveyor assembly including a first upper conveyor and a first lower conveyor; and
pulling the board of fibrous material from the oven with a pulling apparatus downstream of the oven at a speed different from the speed of at least one of the first upper conveyor and the first lower conveyor, causing the fibrous material to skid relative to the at least one of the first upper conveyor and the first lower conveyor, and thereby resulting in a smooth surface board.
2. The method according to Claim 1, wherein the pulling apparatus applies pressure to a surface of the fibrous material.
3. The method according to Claim 1, wherein the pulling apparatus applies pressure to a surface of the fibrous material, the pressure being sufficient to prevent skidding of the fibrous material within the pulling apparatus.
4. The method according to Claim 1, wherein the pulling apparatus comprises a second conveyor assembly including a second upper conveyor and a second lower conveyor.
5. The method according to Claim 1, wherein the pulling apparatus pulls the board of fibrous material a speed faster than the speed of the at least one of the first upper conveyor and the first lower conveyor.

6. The method according to Claim 1, wherein the pulling apparatus pulls the board of fibrous material a speed slower than the speed of the at least one of the first upper conveyor and the first lower conveyor.

7. The method according to Claim 1, wherein the pulling apparatus pulls the board of fibrous material at a speed different from the speed of both the first upper conveyor and the first lower conveyor, thereby causing the fibrous material in the oven to slip relative to a surface of the first upper conveyor and a surface of the first lower conveyor, such that the opposing surfaces of the fibrous material are smoothed.

8. The method according to Claim 7, wherein the pulling apparatus pulls the board of fibrous material a speed faster than the speed of both the first upper conveyor and the first lower conveyor.

9. The method according to Claim 7, wherein the pulling apparatus pulls the board of fibrous material a speed slower than the speed of both the first upper conveyor and the first lower conveyor.

10. The method according to Claim 1, wherein the fibrous material is fibrous mineral material.

11. The method according to Claim 1, wherein the pulling apparatus comprises a spiked wheel.

12. The method according to Claim 1, wherein surfaces of the first upper conveyor and the first lower conveyor are foraminous.

13. The method according to Claim 1, wherein surfaces of the first upper conveyor and the first lower conveyor are substantially smooth.

14. The method according to Claim 1, wherein a surface of the pulling apparatus has a coefficient of friction greater relative to the coefficient of friction of the surfaces of the first upper conveyor and the first lower conveyor.

15. A method for manufacturing smooth surface board from fibrous material, the method comprising the steps of:

moving fibrous material through an oven on a first conveyor assembly to produce a board of fibrous material, the first conveyor assembly including a first upper conveyor and a first lower conveyor;

driving one of the first upper conveyor and the first lower conveyor at a speed faster relative to the other of the first upper conveyor and the first lower conveyor;

pulling the board of fibrous material from the oven with a pulling apparatus downstream of the oven at a speed different from the speed of least one of the first upper conveyor and the first lower conveyor, causing the fibrous material to skid relative to the at least one of the first upper conveyor and the first lower conveyor, and thereby resulting in a smooth surface board.

16. The method according to Claim 15, wherein the pulling apparatus applies pressure to a surface of the fibrous material.

17. The method according to Claim 15, wherein the pulling apparatus applies pressure to a surface of the fibrous material, the pressure being sufficient to prevent skidding of the fibrous material within the pulling apparatus.

18. The method according to Claim 15, wherein the pulling apparatus comprises a second conveyor assembly including a second upper conveyor and a second lower conveyor.

19. The method according to Claim 15, wherein the pulling apparatus pulls the board of fibrous material a speed faster than the speed of the at least one of the first upper conveyor and the first lower conveyor.

20. The method according to Claim 15, wherein the pulling apparatus pulls the board of fibrous material a speed slower than the speed of the at least one of the first upper conveyor and the first lower conveyor.

21. The method according to Claim 15, wherein the pulling apparatus pulls the board of fibrous material at a speed faster relative to both the first upper conveyor and the first lower conveyor, thereby causing the fibrous material in the oven to slip relative to a surface of the first upper conveyor and a surface of the first lower conveyor, such that the opposing surfaces of the fibrous material are smoothed.

22. The method according to Claim 21, wherein the pulling apparatus pulls the board of fibrous material a speed faster than the speed of both the first upper conveyor and the first lower conveyor.

23. The method according to Claim 21, wherein the pulling apparatus pulls the board of fibrous material a speed slower than the speed of both the first upper conveyor and the first lower conveyor.

24. The method according to Claim 15, wherein the fibrous material is fibrous mineral material.

25. The method according to Claim 15, wherein the pulling apparatus comprises a spiked wheel.

26. The method according to Claim 15, wherein surfaces of the first upper conveyor and the first lower conveyor are foraminous.

27. The method according to Claim 15, wherein surfaces of the first upper conveyor and the first lower conveyor are substantially smooth.

28. The method according to Claim 15, wherein a surface of the pulling apparatus has a coefficient of friction greater relative to the coefficient of friction of the surfaces of the first upper conveyor and the first lower conveyor.

29. The method according to Claim 15, further including driving one of the first upper conveyor and the first lower conveyor at a speed within the range of from about 0.4 to about 4.0 percent faster relative to the other of the first upper conveyor and the first lower conveyor.